MATH NEWS

4th Grade Math
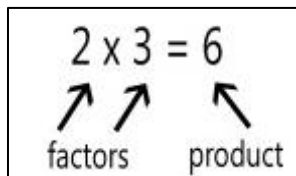
Module 3: Multi-Digit Multiplication and Division

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in the Engage New York material taught in the classroom. Module 3 of the Engage New York material covers Multi-Digit Multiplication and Division. This newsletter will discuss Module 3, Topic F.

Topic F.   Reasoning with Divisibility

Words to know

- Factor
- Products
- Multiple
- Composite Number
- Prime Number
- Associative Property

Things to remember!!!
The Commutative Property says you can swap numbers (or change order) and still get the same answer.

$$1 \times 6 = 6 \text{ and } 6 \times 1 = 6$$

OBJECTIVE OF TOPIC F

1 Find factor pairs for numbers to 100 and use understanding of factors to define prime and composite.

2 Use division and the associative property to test for factors and observe patterns.

3 Determine whether a whole number is a multiple of another number.

4 Explore properties of prime and composite numbers to 100 using multiples.

Focus Area– Topic F

Reasoning with Divisibility

Identify Factors and Product

What are the two multiplication sentences that represent the arrays above?

$$1 \times 6 = 6 \quad \text{and} \quad 2 \times 3 = 6$$

The same product is represented in both sentences.

What are the **factors** of 6? 1, 2, 3, 6

Look at the list of factors, draw an arrow to connect the factor pairs.

Notice that 2 and 3 are the middle factor pair. We have checked all numbers up to 2. There are no numbers between 2 and 3, so we have found all factors of 6.

$$1 \times 5 = 5$$

Find another factor pair for 5. $5 \times 1 = 5$

2, 3, and 4 are not factors of 5, so 5 has only one set of factors. Numbers that have exactly two factors, 1 and itself are called **prime numbers.** Numbers that have at least one other factor beside 1 and itself are called **composite numbers.**

Factors can also be written in a table.

27	
1	27

35	
1	35
5	7

What is a multiple?